

**PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES
MANAGEMENT DIVISION**

**Rolls-Royce Allison
2355 South Tibbs Avenue
Indianapolis, Indiana 46206-0420**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15, IC 13-17 and the Code of Indianapolis and Marion County, Chapter 511.

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| Source Modification No.: T097-11121-00311 | |
| Issued by: Robert F. Holm, PH.D, Administrator Indianapolis Environmental Resources Management Division | Issuance Date: |

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and ERMD. The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates stationary source, used to manufacture aerospace engines.

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|-----------------------|---|
| Responsible Official: | S. M. Hudson |
| Source Address: | 2355 South Tibbs Avenue, Indianapolis, Indiana 46241 |
| Mailing Address: | P.O. Box 420 (N-23), Indianapolis, Indiana 46206-0420 |
| Phone Number: | (317)-230-3591 |
| SIC Code: | 3724 |
| County Location: | Marion |
| County Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Permit Program |
| | Major Source, under PSD Rule; |
| | Major Source, Section 112 of the Clean Air Act |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) open top vapor degreaser, identified as emissions unit 0311-82. This degreaser will use either Perchloroethylene or N-Propyl Bromide as the degreasing solvent. This emission unit is not subject to the requirements of 40 CFR Part 63 Subpart T when using N-Propyl Bromide. The maximum work velocity of this unit is 11 feet per minute. This unit has a interface area of 12.5 square feet. This emission unit is not equipped with any stacks which exhaust to the outside air. The emissions from this unit are emitted into the building.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Indianapolis Environmental Resources Management Division (ERMD), Permits Section verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to ERMD if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from ERMD, Permits Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

- (1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.
- (2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

- (3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD. IDEM, OAM, and ERMD may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application should be certified by the “responsible official” as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this approval:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

Testing Requirements [326 IAC 2-7-6(1)]

C.6 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM and ERMD within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, and ERMD, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.7 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.8 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this approval;
 - (3) The Compliance Monitoring Requirements in Section D of this approval;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM and ERMD upon request and shall be subject to review and approval by IDEM, OAM, and ERMD. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or

- (4) The process has already returned to operating within “normal” parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.9 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, and ERMD within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM and ERMD shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM and ERMD within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM and ERMD reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM and ERMD that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.10 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

- (e) At its discretion, IDEM and ERMD may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.11 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, and ERMD representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or ERMD makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or ERMD within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.12 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Data Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and ERMD on or before the date it is due.
- (c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) open top vapor degreaser, identified as emissions unit 0311-82. This degreaser will use either Perchloroethylene or N-Propyl Bromide as the degreasing solvent. This emission unit is not subject to the requirements of 40 CFR Part 63 Subpart T when using N-Propyl Bromide. The maximum work velocity of this unit is 11 feet per minute. This unit has a interface area of 12.5 square feet. This emission unit is not equipped with any stacks which exhaust to the outside air. The emissions from this unit are emitted into the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart T.

D.1.2 Halogenated Solvent Cleaning NESHAP [326 IAC 20-6-1] [40 CFR Part 63, Subpart T]

This facility is subject to 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning NESHAP), which is incorporated by reference as 326 IAC 20-6-1. A copy of this rule is attached.

- (a) That pursuant to 40 CFR 63.463(a) & (b), the Permittee shall conform to the following design requirements:
- (1) The cleaning machine shall be designed or operated such that, it has an idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
 - (2) The cleaning machine shall be employed with a control combination of: freeboard refrigeration device and freeboard ratio of 1.0.
 - (3) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
 - (4) Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
 - (5) Cleaning machine shall have a primary condenser.
 - (6) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
- (a) That pursuant to 40 CFR 63.463 (d), the following work and operational practice requirements for the degreasing operation are applicable:
- (1) Control air disturbances across the cleaning machine opening(s) by placing cover(s) to the solvent cleaning machine during the idling mode and the downtime mode unless either the solvent has been removed from the machine

- or maintenance or monitoring is being performed that requires the cover(s) to not be in place.
- (2) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
 - (3) Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air.
 - (4) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
 - (5) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
 - (6) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
 - (7) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
 - (8) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
 - (9) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
 - (10) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
 - (11) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
 - (12) Sponges, fabric, wood, and paper products shall not be cleaned.
- (c) That pursuant to 40 CFR 63.463 (e), the Permittee shall comply with the following requirements:
- (1) The Permittee shall conduct monitoring of each control device used to comply with §63. 463 as provided in 40 CFR63. 466, monitoring procedures.

- (2) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
 - (A) The Permittee shall ensure that the chilled air blanket temperature (in EF), measured at the center of the air blanket of the freeboard refrigeration device is no greater than 30% of the solvent's boiling point.
 - (D) When using an idling-mode cover the Permittee shall:
 - (i) ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.
 - (ii) ensure that the idling-mode cover is maintained free of cracks, holes, and other defects.
- (3) An exceedance has occurred if :
 - (A) the requirements of paragraphs (c)(2)(B)(ii), (c)(2)(C)(i), (c)(2)(D)(i), (c)(2)(E), (c)(2)(F)(ii), (c)(2)(F)(ii), (c)(2)(G)(ii), and (c)(2)(G)(iii) of this condition are not met; and
 - (B) the requirements of paragraphs (c)(2)(A), (c)(2)(B)(i), (c)(2)(C)(ii), (c)(2)(D)(ii), (c)(2)(F)(i), and (c)(2)(G)(i) of this condition have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (4) the owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR63.468.

D.1.3 Degreasing Operations [326 IAC 8-3-6]

Pursuant to 326 IAC 8-3-6 (Open top vapor degreaser operation and control requirements), the owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:

- (a) The owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:
 - (i) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (ii) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).

- (iii) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements.
- (iv) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - (B) A refrigerated chiller.
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
 - (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - (E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:
 - (i) Keep the cover closed at all times except when processing workloads through the degreaser.
 - (ii) Minimize solvent carryout emissions by:
 - (A) racking articles to allow complete drainage;
 - (B) moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
 - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (D) tipping out any pools of solvent on the cleaned articles before removal; and
 - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
 - (iii) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
 - (iv) Prohibit occupation of more than one-half (1/2) of the degreaser's open top area with the workload.

- (v) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
- (vi) Prohibit solvent spraying above the vapor level.
- (vii) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
- (viii) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- (ix) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
- (x) Prohibit the use of workplace fans near the degreaser opening.
- (xi) Prohibit visually detectable water in the solvent exiting the water separator.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1)]

The Permittee is not required to test this facility by this permit or by 40 CFR Part 63; 40 CFR 63.465 Test Methods. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.

Compliance Monitoring Requirements

D.1.6 Monitoring Procedures [326 IAC 2-7-6(1)]

That pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:

- (a) The Permittee shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in paragraph(s) below:
 - (1) The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket of the freeboard refrigeration device, during the idling mode.
- (b) The Permittee shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in paragraph below:
 - (1) The Permittee shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.

- (c) The Permittee shall monitor the hoist speed as described below:
- (1) The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes.
 - (2) The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
 - (3) If the exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to the monthly until another year of compliance without an exceedance is demonstrated.
 - (4) If the Permittee can demonstrate to the commissioner's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.

Recordkeeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.1.7 Recordkeeping Requirements

- (a) The Permittee shall maintain, in written or electronic form, records of the following information specified below, for the life time of the machine,
- (1) Owners's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.
 - (2) The date of installation of the solvent cleaning machine and all of its control devices. If the exact date of the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
 - (3) Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine.
- (b) The Permittee shall maintain, in written or electronic form, records of the following information specified below for a period of 5 years:
- (1) The results of control device monitoring required under 40 CFR63.466.
 - (2) Information on the actions taken to comply with 40 CFR63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
 - (3) Estimates of annual solvent consumption for each solvent cleaning machine.

D.1.8 Reporting Requirements

A summary of the information to document compliance with Conditions D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, and to the following address:

United States Environmental Protection Agency, Region V

Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (a) Submit an initial notification report immediately. The report shall include the following information:
 - (1) The name and address of the owner or operator.
 - (2) The address of the solvent cleaning machine.
 - (3) A brief description of each solvent cleaning machine including machine type, solvent/air interface area, and existing controls.
 - (4) The date of installation for the solvent cleaning machine.
 - (5) The anticipated compliance approach for the solvent cleaning machine.
 - (6) An estimated annual halogenated HAP solvent consumption for the solvent cleaning machine.
- (b) Submit an initial statement of compliance for the solvent cleaning machine no later than 150 days after the start up date. This statement shall include:
 - (1) The name and the address of the owner or operator.
 - (2) The address (i.e., physical location) of the solvent cleaning machine(s)
 - (3) A list of the control equipment used to achieve compliance for solvent cleaning machine.
 - (4) For each piece of control equipment required to be monitored, a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date.
- (c) The Permittee shall submit an annual report by February 1 of each year following the one for which the reporting is being made. This report shall include the requirements as follows:
 - (1) A signed statement from the facility owner or his designee stating that , "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR63.463(d)(10)."
 - (2) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
- (d) The Permittee shall submit an exceedance report to the commissioner semiannually except when, the commissioner determines, on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph 40 CFR63.468 (i) of this section is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calender half or quarter, as

appropriate. The exceedance report shall include the applicable information as given below:

- (1) Information on the actions taken to comply with 40 CFR63. 463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.
 - (2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
 - (3) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
- (e) That pursuant to 40 CFR63.463 (i), the Permittee who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the following conditions are met:
- (1) The source has demonstrated a full year of compliance without an exceedance.
 - (2) The Permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in Subpart A (General Provisions) and in 40 CFR 63, Subpart T
 - (3) The commissioner does not object to a reduced frequency of reporting for the affected source as provided in paragraphs (e)(3)(iii) of Subpart A (General Provisions) of 40 CFR 63.
- (f) The Permittee of a solvent cleaning machine requesting an equivalency determination, as described in 40 CFR63.469 shall submit an equivalency request report to the commissioner and receive an approval prior to startup.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Rolls-Royce Allison
Source Address: 2355 South Tibbs Avenue, Indianapolis, Indiana 46241
Mailing Address: P.O. Box 420 (N-23), Indianapolis, Indiana 46206-0420
Significant Source Modification No.: T097-11121-00311

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this approval.**

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Indiana Department of Environmental Management
Office of Air Management
and
Indianapolis Environmental Resources Management Division
Air Quality Management Section

Addendum to the
Technical Support Document for Significant Source Modification to a Part 70 Source

| | |
|--------------------------------------|--|
| Source Name: | Rolls-Royce Allison |
| Source Location: | 2355 South Tibbs Avenue, Indianapolis, Indiana |
| County: | Marion |
| SIC Code: | 3724 |
| Operation Permit No.: | T097-7238-00311 |
| Operation Permit Issuance Date: | Pending |
| Significant Source Modification No.: | T097-11121-00311 |
| Permit Reviewer: | Patrick Coughlin |

On July 16, 1999 the Environmental Resources Management Division (ERMD) had a notice published in the Indianapolis Star, Indianapolis, Indiana, stating that Rolls-Royce Allison had applied for a Significant Source Modification to Part 70 source for the construction and operation of one Open Top Vapor Degreaser subject to 40 CFR Part 63 subpart T. The notice also stated that ERMD proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On July 28, 1999, Rolls-Royce Allison submitted comments on the proposed Significant Modification to a Part 70 source. The summary of the comments is as follows:

Comment 1:

Condition A.2(a) should be amended to indicate that the maximum work speed is only applicable to this emission unit when using Perchloroethylene. This requirement should not apply when using N-Propyl Bromide. The vapor degreaser is located in an open area and does not have any stack exhausts.

Response to Comment 1:

Condition A.2(a) and the description in Section D.1 is a description of the emission unit and is not an enforceable part of the permit. For the purpose of clarification ERMD is proposing the following change to the facility description (revised language has been bolded):

Current description of the unit being permitted:

- (a) One (1) open top vapor degreaser, identified as emissions unit 0311-82. This degreaser will use either Perchloroethylene or N-Propyl Bromide as the degreasing solvent. The maximum work velocity of this unit is 11 feet per minute and a interface area of 12.5 square feet. This emission unit is vented into the building.

Revised facility description:

- (a) One (1) open top vapor degreaser, identified as emissions unit 0311-82. This degreaser will use either Perchloroethylene or N-Propyl Bromide as the degreasing solvent. **This emission unit is not subject to the requirements of 40 CFR Part 63 Subpart T when using N-Propyl Bromide.** The maximum work velocity of this unit is 11 feet per minute. **and This unit has** a interface area of 12.5 square feet. ~~This emission unit is vented into the building. This emission unit is not equipped with any stacks which exhaust to~~

the outside air. The emissions from this unit are emitted into the building.

Comment 2:

The requirement of 40 CFR Part 63 Subpart T only applies when using Perchloroethylene.

Response to Comment 2:

ERMD and OAM agree that the requirements of 40 CFR Part 63 Subpart T do not apply when using N-Propyl Bromide in the Open Top Vapor Degreaser. To correct this problem the first paragraph contained in conditions D.1.2 and D.1.6 have been revised to read as follows (revised language has been bolded):

D.1.2 Halogenated Solvent Cleaning NESHAP [326 IAC 20-6-1] [40 CFR Part 63, Subpart T]

This facility is subject to 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning NESHAP), which is incorporated by reference as 326 IAC 20-6-1. **The requirements of 40 CFR Part 63 Subpart T and this condition do not apply when using N-Propyl Bromide.** A copy of this rule is attached.

D.1.6 Monitoring Procedures [326 IAC 2-7-6(1)]

The requirements of this condition do not apply when using N-Propyl Bromide. That Pursuant to 40 CFR 63.466 the Permittee shall comply with the following monitoring procedures:

**Indiana Department of Environmental Management
Office of Air Management
and
Indianapolis Environmental Resources Management Division
Air Quality Management Section**

**Technical Support Document (TSD) for a
Source Modification to a Part 70 Operating Permit**

Source Background and Description

| | |
|--------------------------------------|--|
| Source Name: | Rolls-Royce Allison |
| Source Location: | 2355 South Tibbs Avenue, Indianapolis, Indiana |
| County: | Marion |
| SIC Code: | 3724 |
| Operation Permit No.: | T097-7238-00311 |
| Operation Permit Issuance Date: | Pending |
| Significant Source Modification No.: | T097-11121-00311 |
| Permit Reviewer: | Patrick Coughlin |

The Office of Air Management (OAM) and Indianapolis Environmental Resources Management Division (ERMD) has reviewed a modification application from Rolls-Royce Allison relating to the construction of the following emission units and pollution control devices:

- (a) One (1) open top vapor degreaser, identified as emissions unit 0311-82. This degreaser will use either Perchloroethylene or N-Propyl Bromide as the degreasing solvent. The maximum work velocity of this unit is 11 feet per second and a interface area of 12.5 square feet. This emission unit is vented into the building.

The Office of Air Management (OAM) and Indianapolis Environmental Resources Management Division have reviewed a modification application from Rolls-Royce Allison relating to the operation of an Open Top Vapor Degreaser.

History

On June 21, 1999, Rolls-Royce Allison submitted an application to the ERMD and OAM requesting to add a perchloroethylene vapor degreaser to their existing plant. Rolls-Royce Allison has submitted a Part 70 application on November 19, 1996.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|----------|-----------|------------------|--------------------|---------------------|---------------------|
| No Stack | N.A. | N.A. | N.A. | N.A. | N.A. |

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 21, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Page 1 of 1 in Appendix A)

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 0 |
| PM-10 | 0 |
| SO ₂ | 0 |
| VOC | 10.5 |
| CO | 0 |
| NO _x | 0 |

| HAP's | Potential To Emit (tons/year) |
|-------------------|-------------------------------|
| Perchloroethylene | Greater than 10 |
| TOTAL | <i>Greater than 10</i> |

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(6).

County Attainment Status

The source is located in Marion County.

| Pollutant | Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment) |
|-----------------|---|
| PM-10 | Attainment |
| SO ₂ | Attainment |
| NO ₂ | Attainment |
| Ozone | Attainment |
| CO | Attainment |
| Lead | Attainment |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Marion County has been classified as attainment or unclassifiable for PM-10, SO₂, NO₂, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant | Emissions (tons/year) |
|-----------------|-----------------------|
| PM | greater than 250 |
| PM-10 | greater than 250 |
| SO ₂ | greater than 250 |
| VOC | greater than 250 |
| CO | greater than 250 |
| NOx | greater than 250 |

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon draft Part 70 Technical Support Document.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

| Process/facility | Limited Potential to Emit (tons/year) | | | | | | |
|----------------------------------|--|-------|-----------------|------|------|-----------------|--------------------------|
| | PM | PM-10 | SO ₂ | VOC | CO | NO _x | HAPs |
| 00311-82 (1) Vapor Degreasers | N.L. | N.L. | N.L. | (1) | N.L. | N.L. | (2) |
| Total Emissions | | | | 10.5 | | | >10 for single HAP |

- (1) Pursuant to 326 IAC 8-3 PTE VOC are limited by work practices.
- (2) Pursuant to 40 CFR Part 63 Subpart T the PTE HAPs are limited by work practices and operating standards.
- N.L. Indicate that the PTE is Not Limited.

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The open top vapor degreaser is subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, (40 CFR 60.460), Subpart T.

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart T.

- (A) That pursuant to 40 CFR 63.463(a) & (b), the Permittee shall conform to the following design requirements:
 - (1) The cleaning machine shall be designed or operated such that, it has an idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
 - (2) The cleaning machine shall be employed with a control combination of: freeboard refrigeration device and freeboard ratio of 1.0.
 - (3) Cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minutes (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
 - (4) Cleaning machine shall be equipped with a device that shuts off sump heat if the sump liquid solvent level drops to the sump heater coils.
 - (5) Cleaning machine shall have a primary condenser.
 - (6) Cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
- (B) That pursuant to 40 CFR 63.463 (d), the following work and operational practice requirements for the degreasing operation are applicable:
 - (1) Control air disturbances across the cleaning machine opening(s) by placing cover(s) to the solvent cleaning machine during the idling mode and the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place.
 - (2) The parts baskets or the parts being cleaned in the cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.
 - (3) Any spraying operations shall be done within the vapor zone or within a

section of the solvent cleaning machine that is not directly exposed to the ambient air.

- (4) Parts shall be oriented so that the solvents drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the commissioner.
 - (5) Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.
 - (6) During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
 - (7) During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
 - (8) When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leak proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
 - (9) Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the commissioner's satisfaction to achieve the same or better results as those recommended by the manufacturer.
 - (10) Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of 40 CFR 63, if requested during an inspection by the commissioner.
 - (11) Waste solvents, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.
 - (12) Sponges, fabric, wood, and paper products shall not be cleaned.
- (C) That pursuant to 40 CFR 63.463 (e), the Permittee shall comply with the following requirements:
- (1) The Permittee shall conduct monitoring of each control device used to comply with §63. 463 as provided in 40 CFR63. 466, monitoring procedures.
 - (2) Determine during each monitoring period if the control device used to comply with the above standards meets the following requirements:
 - (i) The Permittee shall ensure that the chilled air blanket temperature (in EF), measured at the center of the air blanket of the freeboard refrigeration device is no greater than 30% of the solvent's boiling point.
 - (3) When using an idling-mode cover the Permittee shall:

- (i) ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.
 - (ii) ensure that the idling-mode cover is maintained free of cracks, holes, and other defects.
- (4) An exceedance has occurred if :
- (i) the requirements of paragraphs (c)(2)(B)(ii), (c)(2)(C)(i), (c)(2)(D)(i), (c)(2)(E), (c)(2)(F)(ii), (c)(2)(F)(ii), (c)(2)(G)(ii), and (c)(2)(G)(iii) of this condition are not met; and
 - (ii) the requirements of paragraphs (c)(2)(A), (c)(2)(B)(i), (c)(2)(C)(ii), (c)(2)(D)(ii), (c)(2)(F)(i), and (c)(2)(G)(i) of this condition have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameters must be remeasured immediately upon adjustment or repair and demonstrated to be within the required limits.
- (5) the owner or operator shall report all exceedances and all corrections and adjustments made to avoid an exceedance as specified in 40 CFR63.468.

State Rule Applicability - Individual Facilities

326 IAC 1-6-3 (Preventive Maintenance Plan)

According to a IDEM, OAM guidance document Preventative Maintenance Plans (PMP) are required for all emitting units which emit PM, SO₂ or VOC with existing applicable requirements and:

- 1) a NSPS or NESHAP applies; or
- 2) the unit has a control device and allowable emissions exceed 10 pounds per hour; or
- 3) the unit does not have a control and actual emissions exceed 25 tons per year; or
- 4) the unit would have been subject to an applicable requirement if there was not a condition limiting the PTE.

Based on ERMD's review PMPs are required for the Perchloroethylene Open Top Vapor Degreaser, identified as emission unit 0311-82.

236 IAC 2-4.1 (New Source Air Toxic Controls)

Pursuant to 326 IAC 2-4.1-1(b)(2) this unit is exempt from the requirements of this rule, since it is a major source specifically regulated by a standard issued pursuant to 112(d) of the Clean Air Act.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a

continuous opacity monitor) in a six (6) hour period.

326 IAC 8-3-6 (Open top vapor degreaser operations and control requirements)

The open top vapor degreaser (emission unit 0311-82) is regulated under 326 IAC 8-3-6, since the air to solvent interface is greater than 1 square meter (10.8 square feet).

Pursuant to 326 IAC 8-3-6 (Open top vapor degreaser operation and control requirements), the owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:

- (a) The owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:
 - (i) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
 - (ii) Equip the degreaser with the following switches:
 - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
 - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
 - (iii) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements.
 - (iv) Equip the degreaser with one (1) of the following control devices:
 - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
 - (B) A refrigerated chiller.
 - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
 - (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
 - (E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:
 - (i) Keep the cover closed at all times except when processing workloads through the degreaser.
 - (ii) Minimize solvent carryout emissions by:

- (A) racking articles to allow complete drainage;
 - (B) moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
 - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
 - (D) tipping out any pools of solvent on the cleaned articles before removal; and
 - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
- (iii) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
 - (iv) Prohibit occupation of more than one-half (1/2) of the degreaser's open top area with the workload.
 - (v) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
 - (vi) Prohibit solvent spraying above the vapor level.
 - (vii) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
 - (viii) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
 - (ix) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless a greater ventilation rate is necessary to meet Occupational Safety and Health Administration requirements.
 - (x) Prohibit the use of workplace fans near the degreaser opening.
 - (xi) Prohibit visually detectable water in the solvent exiting the water separator.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.

Conclusion

The operation of this open top vapor degreaser shall be subject to the conditions of the attached proposed source modification approval T097-11121-00311.

Appendix A Emission Calculations

| | |
|----------------|--------------------------|
| Company Name: | Rolls-Royce Allison |
| Emission Unit: | 0311-82 |
| Description: | Open Top Vapor Degreaser |
| Permit No.: | T097-11121-00311 |
| Reviewer: | Patrick Coughlin |
| Date: | July 7, 1999 |

| | | |
|-------------------------------|------------------|-------------------|
| Solvent Consumption (gal/day) | 5.05 | 4.3 |
| Solvent used | N-Propyl Bromide | Perchloroethylene |
| Solvent density (lbs/gal) | 11.3 | 13.4 |
| Percent VOC by Weight | 100% | 100% |
| Percent HAP by Weight | 0% | 100% |
| Tons of VOC/yr | 10.4 | 10.5 |
| Tons of HAP/yr | 0 | 10.5 |